UTAH DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS CENTER
MONTHLY REPORT DECEMBER 2003

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Field Devices Summary

Freeway Closed Circuit Television (CCTV)	171
Surface Street CCTV	32
Dial-up CCTV	35
Total CCTV	**238**
Freeway VMS	42
Surface Street VMS	17
Portable VMS	2
Total VMS	**61**
HAR (6 deployed, 5 portable units)	11
TMS	243
RWIS	41
Connected Traffic Signals	623
Connected Ramp Meters	23

Department of Public Safety Ensemble performing at the TOC Christmas Party

Operations Summary

VMS Messages Displayed	165
Signal Timing Calls	42
Signal Maintenance Calls	271
New Work Orders	410
Incident Responses	700
Website Visitor Sessions	143,023
511 Calls	138,833
Email Alerts Sent	260
Weather Desk Calls	833
CommuterLink Questions	50

KUDOS!

TOC Weather Desk:

"You guys are a great service and have been doing a great job for us. It is much easier to plan our operations thanks to you."

Maintenance Shed 227

"We don't pay attention to any other weather sources, including those on TV."

Maintenance Shed 230

"When we received your forecast, we thought you were out to lunch. But you nailed [the forecast], and we had to eat our words."

Maintenance Shed 426

TOC Employee of the Month

Max Hardcastle – Region 2 IMT

TOC Mission

1. To Support UDOT and the Department of Public Safety in Improving Highway Safety.
2. To Help Provide Reliable and Efficient Travel.
3. To Provide Useful and Timely Real-time Traffic Information.
4. To Work Together with Other Government Agencies to Serve the Public.
5. To Provide Excellent Customer Service.

ACTIVITY HIGHLIGHTS

TOC Activities

This Month

1. The number of calls to 511 during the month of December hit another all time high at 138,833 calls. This is 86,931 more calls than November, which was a record setting month for 511 at 51,902 calls. This dramatic increase is attributed to the several snowstorms that affected the entire state, to new signs posted on Highways throughout the state, and to a greater number of out of area holiday travelers.

2. The TOC welcomes Pam Rugg and Scot Chipman as the new Support Services Coordinator and meteorologist, respectively. Pam came to the TOC from the UDOT ITS Division, which was combined with the TOC, and will be working with the Administrative Staff. Scot is a NorthWest Weathernet employee, who will be working mostly on the weekend, to provide up-to-date weather forecasting for maintenance and construction crews across the state. The Weather Desk staff worked many extra hours in December and recorded 833 calls to their station from both UDOT personnel and commuters.

3. The TOC held its annual Christmas Party on December 10th. Several awards were given, including Employee of the Month. The Department of Public Safety Ensemble also performed several Christmas numbers.

4. Control Room Supervisor Denny Simmons passed away in early January after a short battle with cancer. Denny started working at the TOC as an Operator when the TOC opened in 1999. Denny was instrumental in defining the use of the Amber Alert by the TOC, and has worked with several other agencies and individuals to improve its use. Denny's work and wonderful personality will be greatly missed.

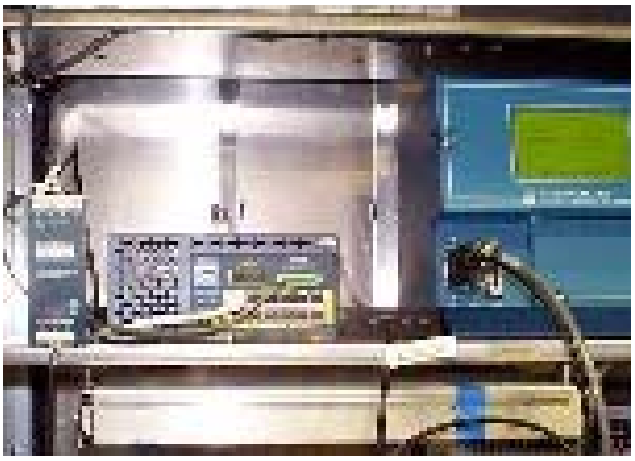
5. The TOC was host to a variety of tours this month. Captain Fitzgerald Peterson from the Salt Lake County Fire Department toured the TOC. Captain Peterson is stationed at the Emergency Operations Center (EOC) and is considering holding the monthly Captain's Meeting, which consists of all Fire Department Battalion Chiefs in the county, at the TOC. The TOC hosted a second tour, conducted by Dave Kinnecom, for Jack Worgen from the Colorado Department of Transportation.

ATMS Improvement and Expansion Activities

The following is a list of many of the projects that have either been completed, or are currently underway:

Region 1:

- Final fiber optic inspection has been completed on the Odgen Signal Interconnect Project. With inspection complete, the Region accepted the fiber installation.
- Installation of the new communication equipment in the Ogden Area has begun. This equipment will enable the Region 1 Headquarters as well as the TOC to make changes to Traffic Signal Timing from a central console. This equipment makes it possible to connect traffic signal controllers, video equipment, and malfunction monitoring units (MMU's). Approximately 14 traffic signal cabinets have had this equipment installed in the Region, and more than 40 more will be installed during the month of January.



IP Equipment Installation in Ogden Area

Region 2:

- A weather station was installed at the Bluffdale UDOT Maintenance Shed (227). This station provides wind speed and direction, barometric pressure trends, and temperature trends. By having this information the crew can better prepare for their snow removal operations.
- A concept report has been written for the Bridge Deck Replacement on I-215 East at 3900 South and 3760 South. This project will use prefabrication element construction. This project will include the installation of a temporary CCTV for UDOT Research that will send images of the project every 15 minutes to the TOC to be stored on a server. The concept report has been submitted for review, and will be distributed in January.
- Traffic signal cabinet hardware has been configured, and Hub equipment is being prepared for the Bangerter Highway CCTV and Signal Interconnect Project. This equipment is identical, and has the same capabilities, to that which is currently being installed in Region 1.

Region 3:

- Plans for a Media Event were made to announce the ATMS expansion in Utah County. This media event will discuss the enhancements that have been made to the ATMS. This includes CCTV, TMS, and VMS.
- The ATMS design for the I-15 Widening Project from 10600 South to the Point of the Mountain was completed. This project includes the relocation of the conduit and also of Hub 12. The project includes 11 new CCTV, one new VMS, and infrastructure for 3 future ramp meters.

Region 4:

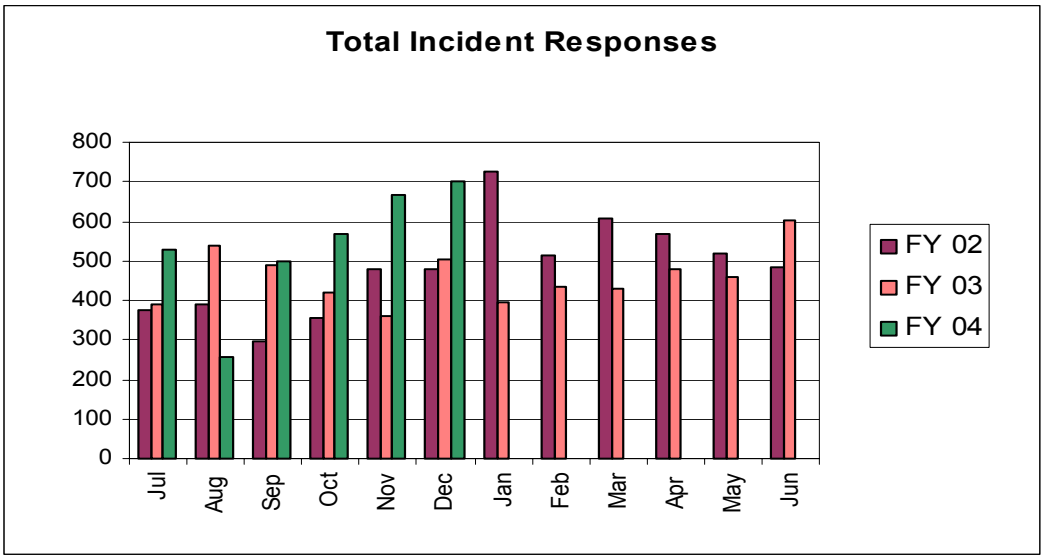
- A concept report incorporating ITS components for Moab Main Street has been delivered. This project, if approved, will provide an integrated *i2TMS* server to Richfield and the TOC.

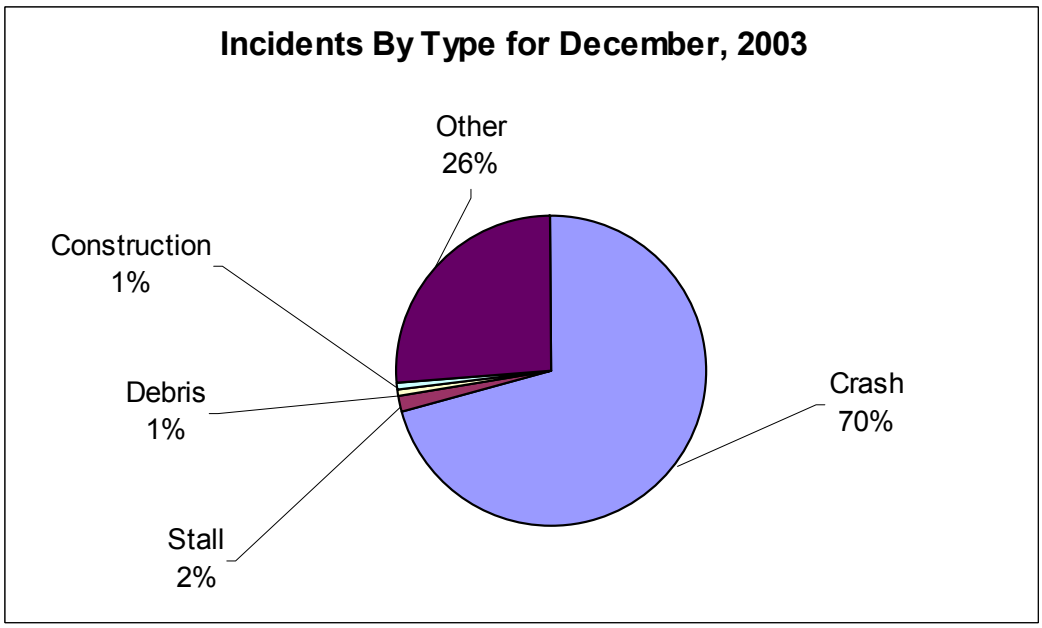
Acronyms

ATMS	Advanced Traffic Management System	TMS	Traffic Monitoring Station (count station)
CCTV	Closed Circuit Television	TOC	Traffic Operations Center
DPS	Department of Public Safety	TTI	Travel Time Index
HAR	Highway Advisory Radio	VMS	Variable Message Sign
RWIS	Road-Weather Information System	*i*2TMS	Integrated Interagency Traffic Management System

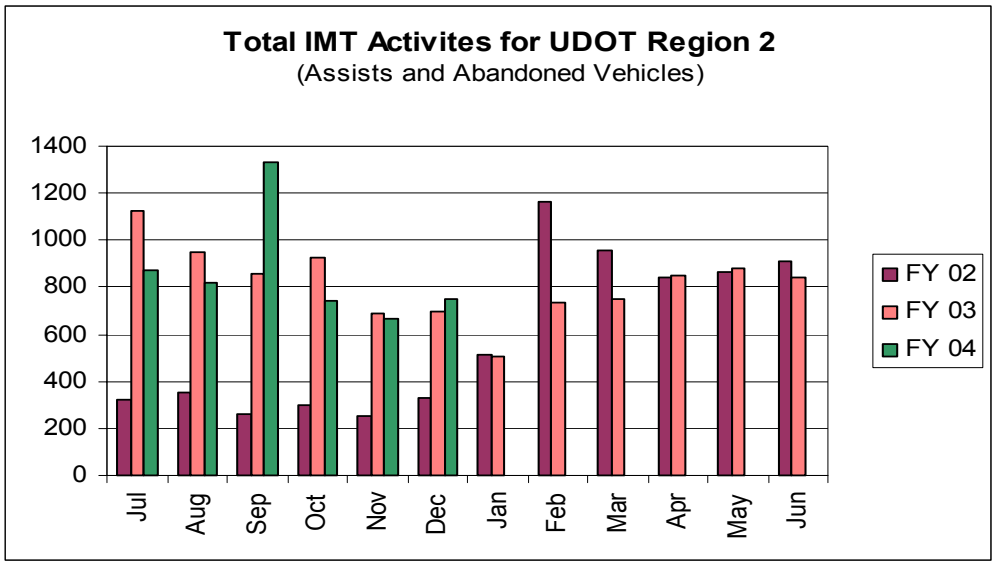
Safety

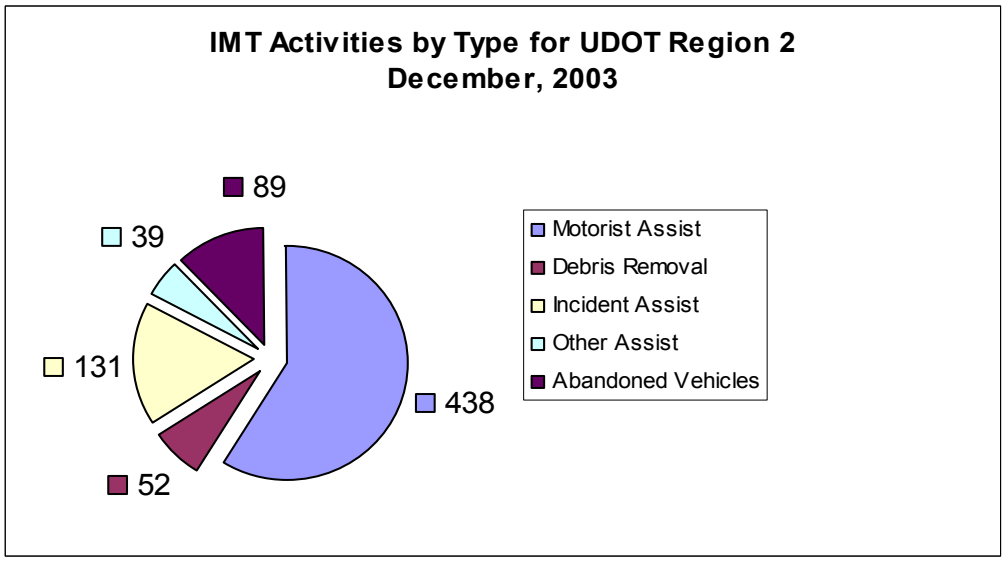
An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Each time an incident is created, information is sent to the 511 system, the website, and to the public through email alerts.





Region 2 Incident Management Team (IMT) Activities





Freeway Traffic Level of Service

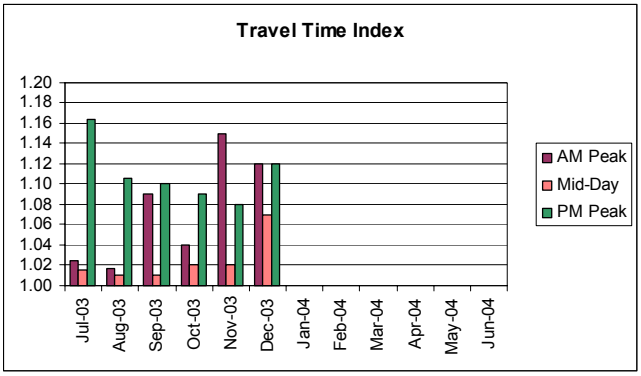
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

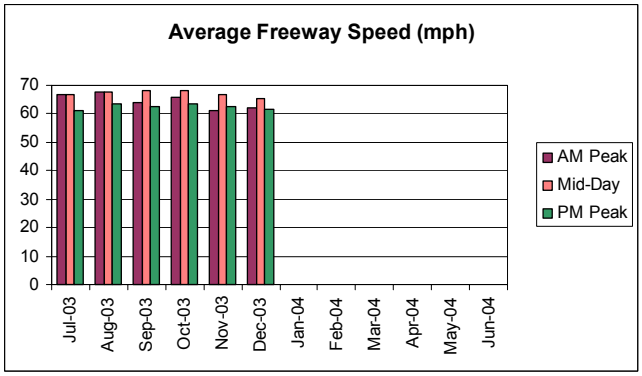
Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

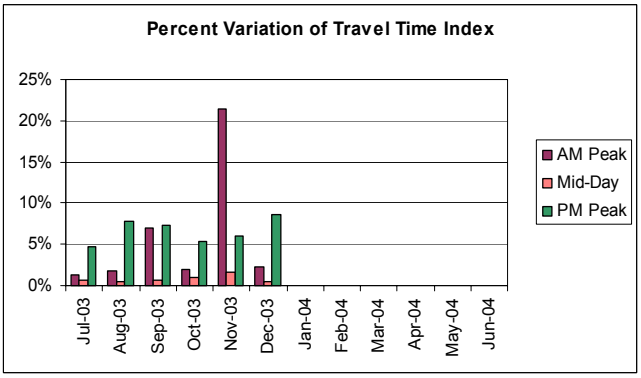
Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

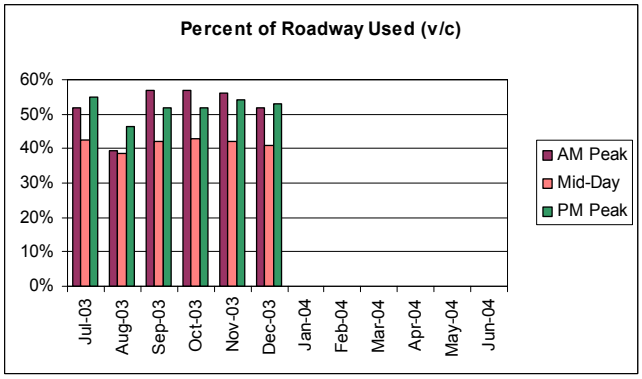
Average Freeway Speed: The Freeway Speed is weighted by volume.

Percent of Roadway Used: The percent of roadway used is the ratio of the volume on the segment to its capacity. This is otherwise known as the volume to capacity ratio, or (v/c).









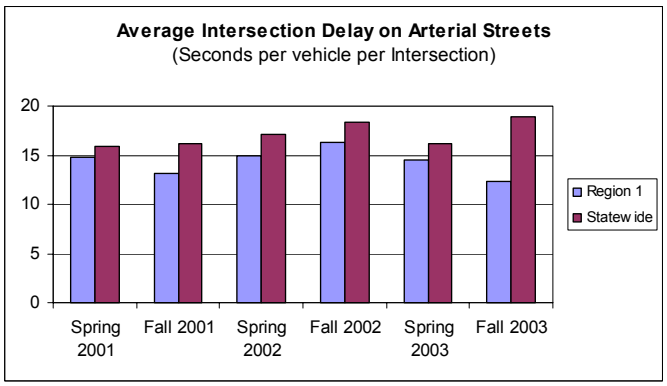
The 5 links with the highest average Travel Time Index for the month are:

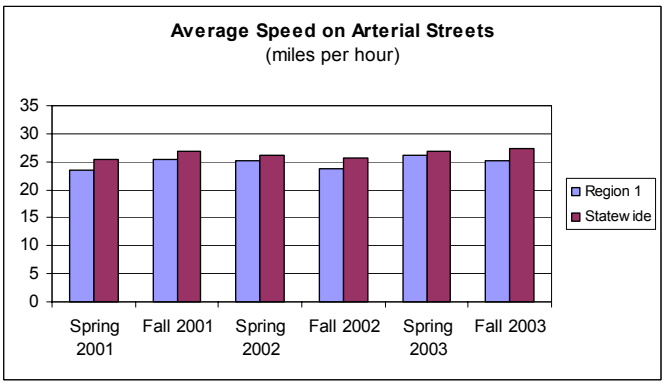
Segment	Period	Avg Of TTI
I-15 NB from 600 N to I-215 W	PM Peak	1.46
I-15 NB from Point-of-the-Mountain to 10600 S	AM Peak	1.33
I-15 NB from 600 S to 600 N	PM Peak	1.31
I-15 SB from 600 N to 600 S	PM Peak	1.30
I-15 SB from 600 N to 600 S	AM Peak	1.24

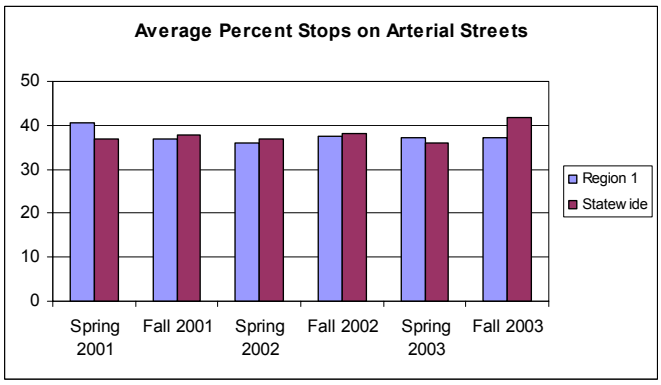
Surface Street Traffic Level of Service

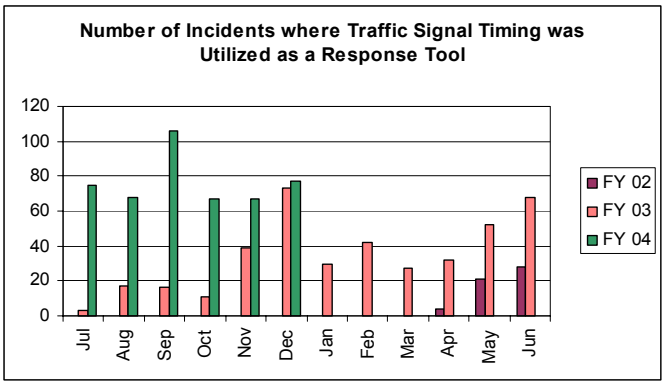
The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Traffic Systems Section gathers these measurements from Regions 1, 2, 3, and 4 twice each year. The chart in the lower right corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.

Since the data is gathered semi-annually, each month this report will provide charts for a Region compared to the Statewide Average. The charts below represent Region 1 compared to the Statewide Average.

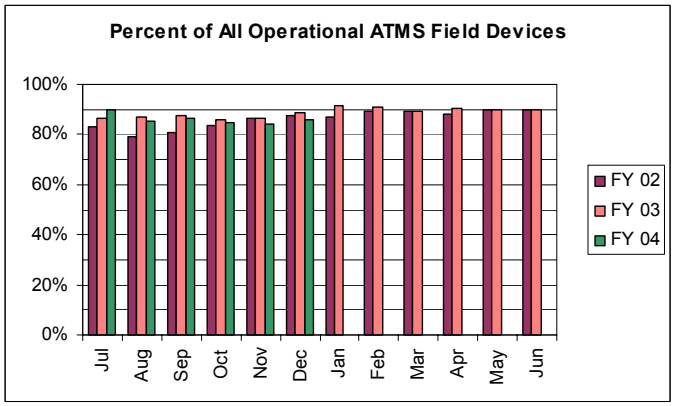


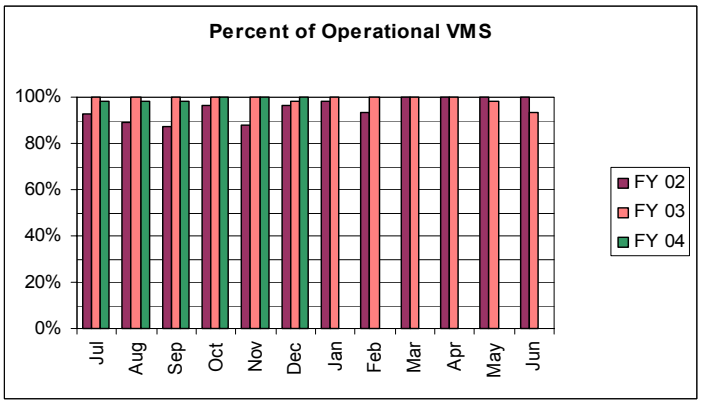


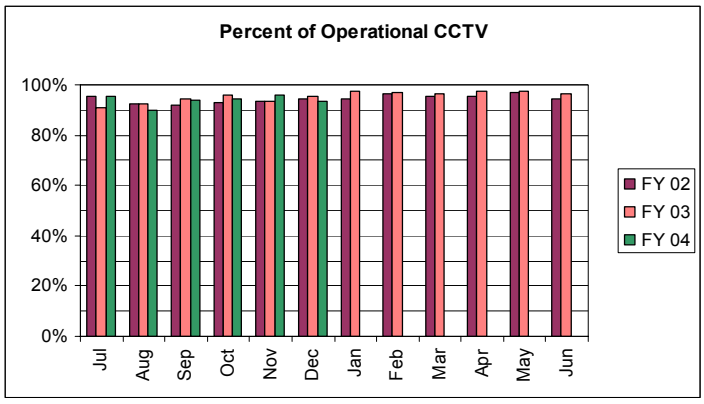


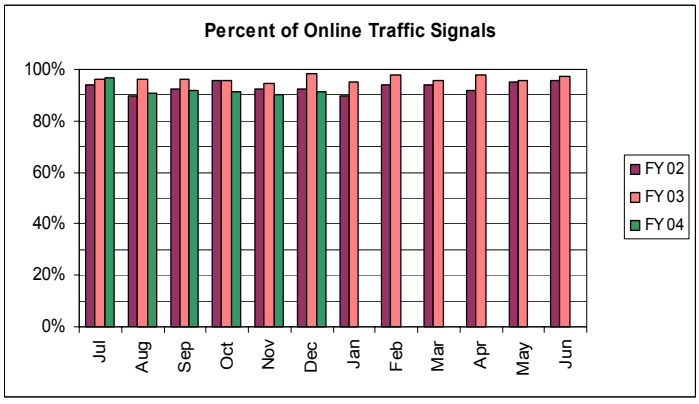


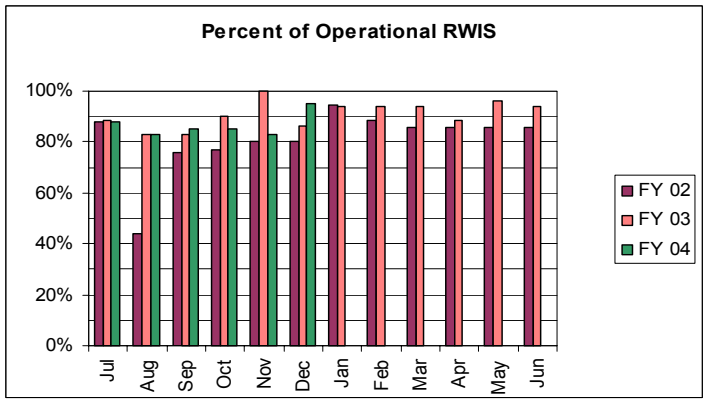
Maintenance

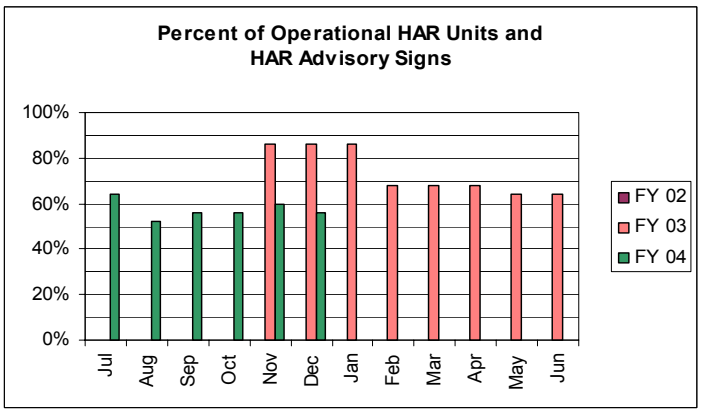


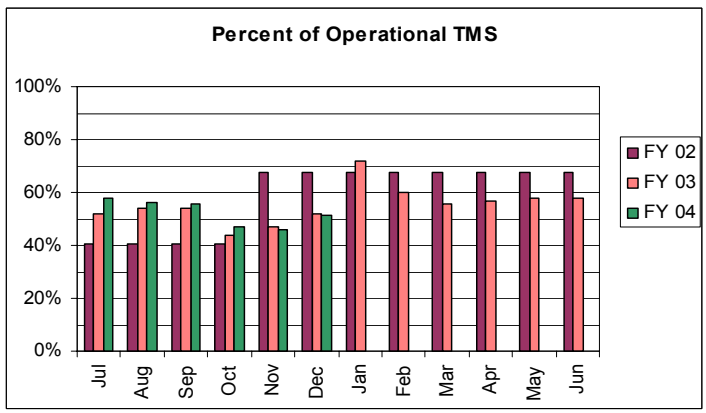




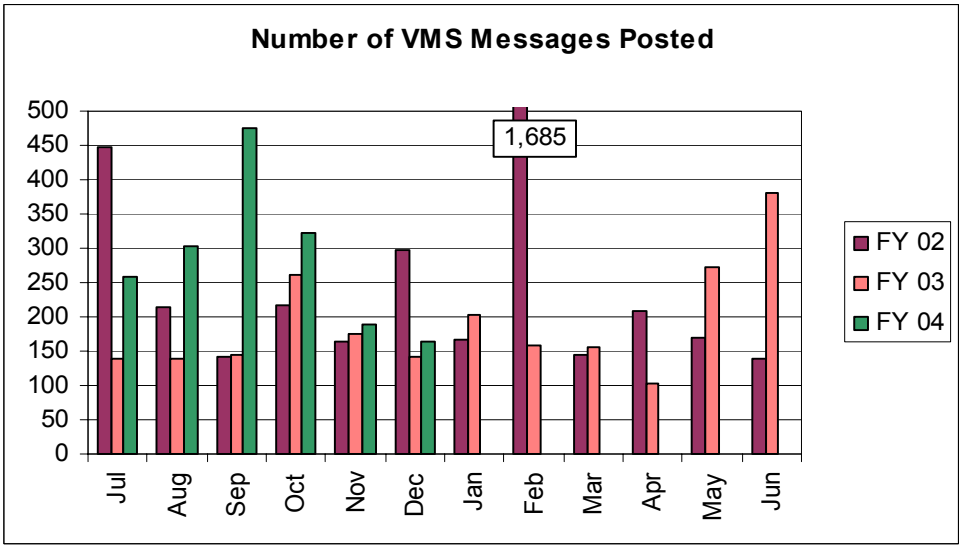


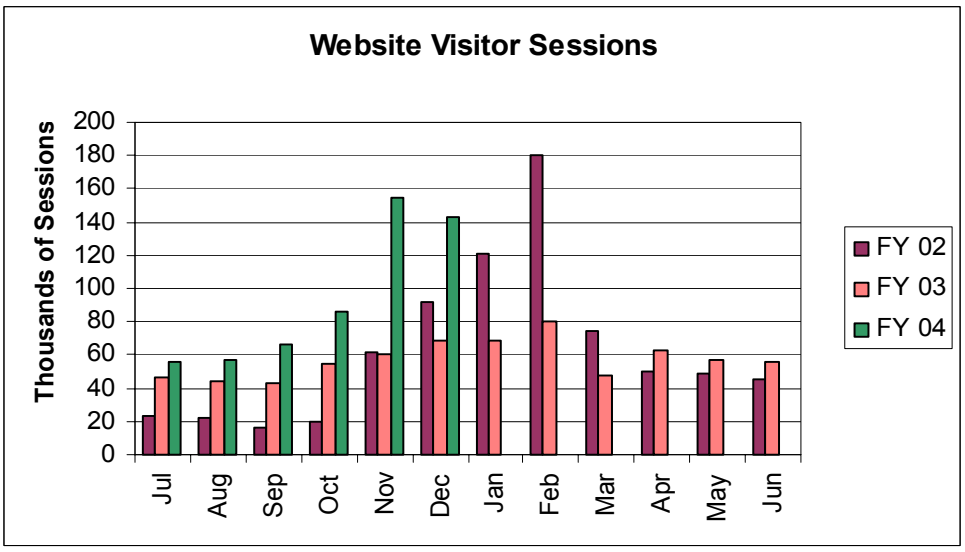


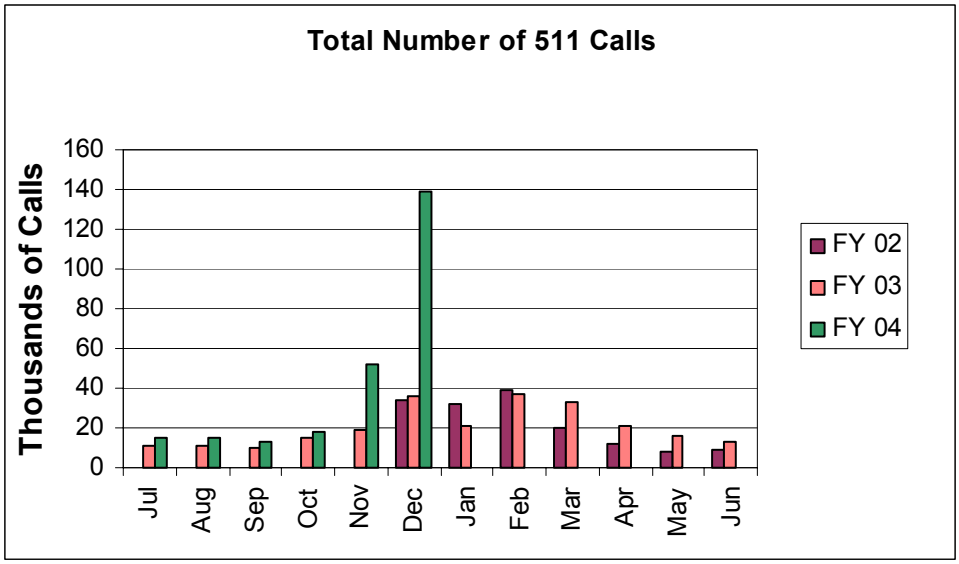




Traveler Information







Customer Service